

### **REMARKS/ARGUMENTS**

Reconsideration of this application is requested. Claims 1-8 and 11-19 are pending in the application subsequent to entry of this Amendment.

The claims have been amended in order to more particularly point out and distinctly claim that which applicants regard as their invention and to direct them to preferred aspects of the disclosure. More specifically, claim 1 is amended to incorporate the subject matter of previous claim 9, the embodiment described in the specification at page 4, beginning at line 33 and requiring that part of the atoms of at least one component element of the ceramic material are replaced by atoms of a non-component element and that the catalyst component is supported on the non-component element by a chemical bond. Chemical bonding is the subject of previous claim 10. Applicants have found that as a chemical bond increases retentivity and the catalyst component becomes hard to aggregate, deterioration of the catalyst component is inhibited. Further, the catalyst component is able to maintain a large surface area over a long period of time. *See* the discussion on page 5, lines 6-12 of the description.

The amendments to claim 1 have required consequential changes in claim 11 (as to dependency) and claim 12 (to delete a feature now recited in claim 1). In addition, a minor typographical error is corrected in claim 18.

The Official Action sets out three separate prior art-based rejections. The first alleges anticipation of certain claims over the Mussmann et al reference. Claims 9 and 10 are not included in this rejection so all of the claims now under consideration are novel over the disclosures of this citation. The rejection set out in item 2 of the Official Action has thus been overcome. Claim 8 is rejected as being "obvious" over the same reference. However as claim 8 is dependent from claim 1 the rejection stated in item 4 will be rendered moot when the patentability of claim 1 is recognized.

In item 5 of the Official Action original claims 9-11 and 13-18 are rejected as being "obvious" and unpatentable over the Mussmann reference mentioned above in view of a published European application of Koike et al, EP '067. Neither of these references nor their combination are suggestive of the claims now under consideration.

Published European application '067, assigned to one of the owners of the present application, relates to ceramic supports in which the catalyst component can be supported

directly on the catalyst support by nanocracks. The catalyst component can be supported directly on the catalyst support without the need for a coating layer.

The Mussmann et al patent describes a catalyst including a carrier body, an inner layer and an outer layer. The two layers contain promoter components. The second layer may include components which improve the dynamic behavior of the final catalyst; *see* the discussion bridging columns 5 and 6 of the citation.

In contrast to these cited documents the present invention uses a catalyst support on which the catalyst is directly supported by a chemical bond. This particular manner in which the catalyst is supported is not disclosed or suggested in either of the cited references nor does a combination of the two documents lead to the product of applicants' claims, namely a ceramic carrier comprising a ceramic material which is capable of supporting a catalyst component directly on its surface. It contains at least two layers of promoter components, the outermost layer having increased heat resistance. The ceramic material contains atoms which have been replaced by non-component elements and a catalyst component is supported on these non-component elements directly by a chemical bond.

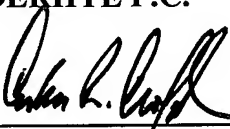
Neither of the cited references nor their combination is suggestive of the present invention as defined in amended claim 1. Reconsideration and favorable action is solicited.

Please take into account the concurrently filed Information Disclosure Statement when further examining the claims of this application.

Respectfully submitted,

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